

THE DEVELOPMENT OF NATIONAL SURVEILLANCE SYSTEM FOR THE CLIMATE CHANGE-RELATED HEALTH IMPACTS IN KOREA

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Background and Aims: Climate changes have definite influence on health. The assessment and identifying of climate change-related health impacts is required to establish proper policy for government. Korea has developed the national surveillance system to make reliable data for evidence of policy and investigation about epidemiologic characteristic.

Methods: Delphi technique was performed to identify the climate change-related area among the expert. The study made suggestions about the system building by examining the current state of the nation and additionally required elements in order to help to set up a monitoring system in each subarea.

Results: The following field is selected to be monitored: 1) Influences of severe heat, 2) Influences of meteorological disasters, 3) Infectious diseases via insects and rodents, 4) Infectious diseases via water and food, 5) Influences of pollens, allergens, and air pollution, 6) Cardiocerebrovascular and chronic diseases, and 7) Influences of UV light. Heat related-health impact can be monitored by heat stroke patients based on ER, usage status of emergency department or ambulance service, mortality and predictive model for daily mortality. Morbidity due to meteorological disaster, such as injuries, acute diseases, exacerbations of chronic disease or psychological problems like post-trauma stress disorder is monitored as well as mortality. Surveillance system for arthropod and rodent-borne disease is relatively well implemented under statutory infectious diseases monitoring system. Because water-borne or cardiocerebrovascular diseases does not have enough evidence related to climate change, further researches about relation between them are needed. National cancer registry system can be used for UV light-related health surveillance system. Advanced studies for validity of national surveillance systems are conducted and will be performed in 2011.

Conclusions: National surveillance system can be established by use of existing systems and data and improved by compensation for the defects. It will be helpful for making policy and various studies.